

AN EXAMINATION OF PUBLIC TRANSPORTATION PROBLEMS  
FACING THE ELDERLY AND DISABLED PERSONS IN  
FULTON AND DEKALB COUNTIES

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## ABSTRACT

### PUBLIC ADMINISTRATION

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#### An Examination of Public Transportation Problems Facing the Elderly and Disabled Persons in Fulton and DeKalb Counties

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The major purpose of this paper is to identify some of the major problems encountered by elderly and handicapped riders of the Metropolitan Atlanta Rapid Transit Authority (MARTA) system, and the proposed modifications to the system which would make it better serve the needs of this group. Elderly and handicapped citizens are a transit-dependent population and their numbers are growing, especially in the central cities where we find mass transit systems such as MARTA. The major assumption in this paper is that MARTA has not done all that it should to make transit services as accessible, convenient and comfortable as they could be.

Data for the study were collected through interviews of a sample of elderly and handicapped residents of senior citizen and rehabilitation facilities in Fulton and DeKalb Counties. Eighty (80) people were interviewed for this study. Non-random sampling was used.

The major finding of the study was that the elderly respondents encountered fewer problems riding the MARTA system than the handicapped

respondents. Therefore, most of the recommendations presented in the study are concerned with making MARTA more accessible, convenient, and comfortable for the handicapped.

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## I. INTRODUCTION

Elderly and disabled persons have always been a major and important segment of the transit-riding population. In recent years, however, growth in both the elderly and disabled populations has prompted more focused attention to the provision of transit services to meet their mobility needs.

In assessing the mobility needs of elderly and disabled persons, it is important to realize that providing transportation for them has become a major objective for transit systems across the country. This paper is concerned with both identifying deficiencies in the transportation services currently available to the elderly and handicapped in Fulton and DeKalb Counties and the types of improvements which would correct those deficiencies.

MARTA does provide some special transportation vehicles for the elderly and handicapped in Fulton and DeKalb Counties, however, these are few in number. There were approximately ten Lift-Vans for the handicapped when this study was done and about six buses which, once a month, took elderly residents of senior citizen homes to the malls for shopping. Most elderly and handicapped residents of Fulton and DeKalb Counties, however, must ride the buses and trains that other transit riders use on a daily basis who are better able to walk and run fast, stand up on a moving vehicle, or climb steps or stairs.

Following the introduction in Section One of this paper, Section Two provides an overview of the problem statement, and a description of the agency in which the problem exists. Section Three surveys the relevant literature on the subject and summarizes some case studies of transit services for the elderly and handicapped in some cities.

Section Four of the paper presents this writer's methodology, and Section Five discusses the major findings from the survey of elderly and handicapped respondents in Fulton and DeKalb Counties. The final section of the paper gives conclusions and recommendations based on the findings of the study.

## II. THE PROBLEM AND ITS SETTING

### The Agency and Unit Description

A rail system for the Atlanta area was first proposed in 1961. It took nearly twelve years, however, to plan the system, debate it, develop a financing plan and obtain federal aid. The referendum for the system was approved by voters in Fulton and DeKalb Counties in 1971. From 1976 to 1982, MARTA's consulting engineers and architects completed conceptual designs, located routes and station sites, undertook the design of those lines and stations, wrote specifications for trains and other operating equipment and retained numerous other experts for specialized tasks.<sup>1</sup> Today, the system is almost complete and provides service to all parts of the City of Atlanta and to the other major cities in Fulton and DeKalb Counties. In 1977, MARTA initiated a new unit of its agency that was entitled "Special Transportation." This unit is concerned with providing transportation to the elderly and the disabled in Fulton and DeKalb Counties. The stated objectives of this unit include:

1. Full accessibility in the design of stations and vehicles of the rail system;
2. Improved convenience of use in the present bus system;

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<sup>1</sup>Georgia, Department of Human Resources, "FY 82 Interim Plan for Transportation" (Atlanta, GA: n.p., June 1982), p. 22.

3. Evaluation of needs for mobility of individuals who cannot effectively utilize the transit system.<sup>2</sup>

The Urban Mass Transportation Administration has rated the Special Transportation Unit as being reasonably successful in accomplishing its objectives. The unit is considered to have developed public transportation opportunities which meet the needs of about 50 percent of the elderly and handicapped in Fulton and DeKalb Counties. The organization chart for the Special Transportation Unit is shown on the following page.

To assist the Special Transportation Unit in areas that might be overlooked, a special advisory committee was established. This committee consists of fourteen regular members, representing the various functional areas of concern: the blind, wheelchair users, those who walk with difficulty and require aids, those with an impairment of the upper extremities, those undergoing medical and/or vocational rehabilitation and those who are sixty-five or over with no disability.<sup>3</sup>

The major sources of federal funds to meet the transit needs of the elderly and handicapped are shown in Table 1. MARTA receives the majority of its funds from the Urban Mass Transportation Administration, which was created by the Urban Mass Transportation Act of 1966. MARTA receives money only from Section 3, which is rail funding, and Section 9, which is a formula funding that is based on the population of

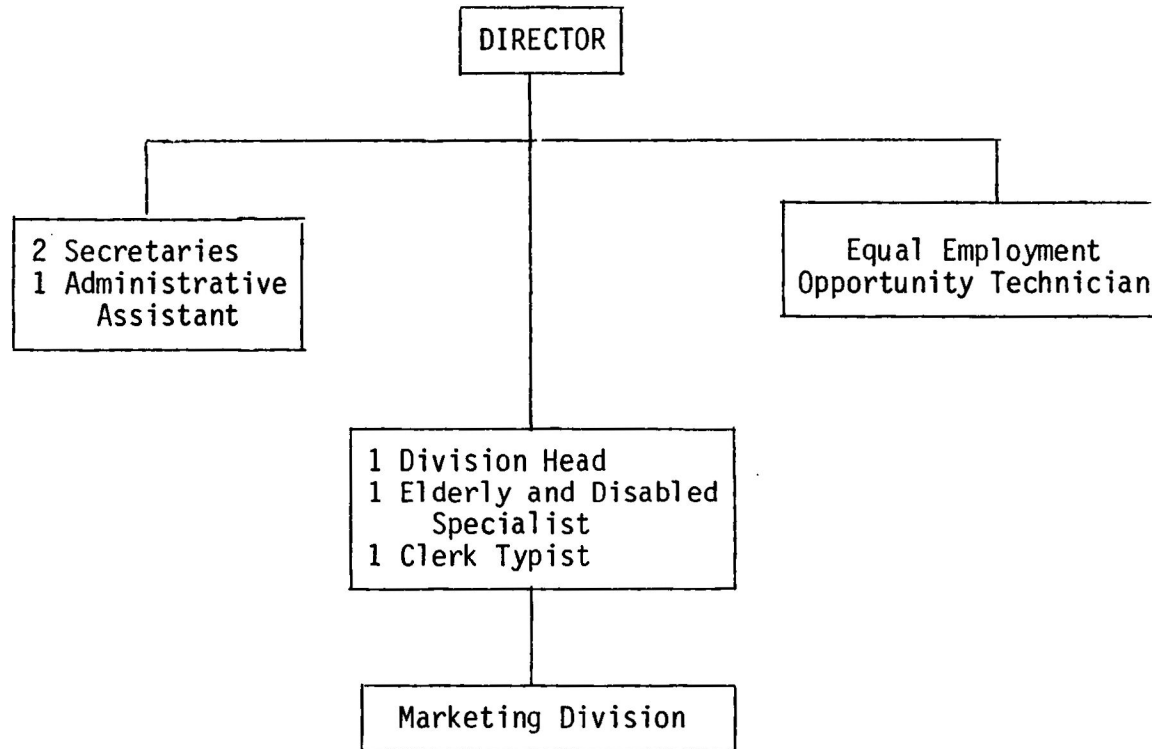
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<sup>2</sup>Ibid., p. 38.

<sup>3</sup>Ibid., p. 49.

FIGURE 1

ORGANIZATION CHART OF MARTA'S SPECIAL TRANSPORTATION UNIT



Source: Metropolitan Atlanta Rapid Transit Authority, "MARTA's Annual Review" (Atlanta, Georgia: April 1986), p. 8.



TABLE 1

## MAJOR SOURCES OF FUNDS FOR ELDERLY AND DISABLED PERSONS

<u>Program and Administering Federal Department</u>	<u>Population Served</u>	<u>How Funds Are Used By Transportation Authorities</u>
1. Special Programs for the Aging (HEW) A. Title III (OAA) B. Title VII (OAA)	Elderly Elderly over 60	Purchase of vehicles and special equipment, client and staff reimbursement, and purchase of services allowed.
2. Title XX - Social Security Act (HEW) "Public Services"	Elderly, Blind, Disabled; Income eligibility required (SSI)	Purchase of vehicles and special equipment, client and staff reimbursement allowed. Transporta- tion must be in State Plan.
3. Medicaid - Title XIX Social Security Act (HEW)	Income eligibility required - SSI eligibles; no age specified	Purchase of vehicles prohibited; purchase of services, staff and client reimbursement allowed; income disregard provisions in effect.
4. Rehabilitation Services Program (HEW)	Employable disabled; no age requirements	Purchase of vehicles not encouraged but allowed; purchase of services allowed; staff and client reimburse- ment allowed.
5. Developmental Disabilities Program (HEW)	Disabled, under age 18	Purchase of vehicles and special equipment allowed, staff and client reimbursement allowed; income disregard provisions in effect.

Table 1 continued

<u>Program and Administering Federal Department</u>	<u>Population Served</u>	<u>How Funds Are Used By Transportation Authorities</u>
6. Public Health Services Programs (HHS)	General population with health needs - includes elderly and handicapped	Vary from program to program
7. Veterans Programs (VA)	Veterans - elderly and handicapped	Stipends to individuals for transportation services and special automobiles
8. Section "147" Program	Elderly and handicapped in rural areas as well as general population	Purchase of vehicles allowable. Operating costs may not exceed 1/3 of total grant for new projects.
9. Urban Mass Transportation Administration Programs	General population, elderly and handicapped served.	Purchase of capital equipment only.
Capital (Grant Program)		Purchase of vehicles only.
Section 16(b) (2) (Elderly and Handicapped Transportation Services)	Elderly and Handicapped	Purchase of vehicles allowed.
10. Retired Senior Volunteer Program (Action)	Elderly	Purchase of vehicles allowed.
11. Senior Opportunities and Services	Elderly	Purchase of services and vehicles allowed at the discretion of grantee.

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Source: U.S. Department of Health and Human Services, Office of the Regional Director,  
"Transportation Authority and Federal Human Services Program" (Atlanta, Georgia: January 1986), p. 126.

each city with mass transit service. The Special Transportation Unit of MARTA is included in MARTA's total budget for each fiscal year. However, the major source of funding for the Special Transportation Unit is Section 9 of The Urban Mass Transportation Act of 1964 as amended. MARTA's budget for the fiscal year 1987-88 was \$149,642,781. Of this amount, six million dollars was allocated to The Special Transportation Unit.<sup>4</sup>

### The Internship

This writer was an intern with MARTA's Special Transportation Unit from August 1986 to December 1986, and worked primarily with the Director of Eldery and Disabled staff. Major responsibilities, during the internship, included the following.

1. attending meetings with Fulton County Commissioners;
2. meeting with City of Atlanta Council members to get their input on MARTA's Special Transportation Unit;
3. reviewing current routes for possible savings of miles and hours;
4. revising current Service Request forms;
5. contacting Atlanta Regional Commission for information on surveys done by other cities pertaining to the elderly and handicapped.

The writer found the Special Transportation Unit to be an excellent environment for observing some of the major concepts and practices of public administration which were studied in class. This internship also acquainted the writer with the importance of developing public programs and policies which improve the transit services

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<sup>4</sup>Susan Brown, Director of Budget and Finance, MARTA, interview, Atlant, Georgia, March 1, 1988.

currently available to the elderly and handicapped in our society.

#### Statement of the Problem

Doctors and clinics, stores and shops, entertainment, family and friends, and recreational areas must be accessible to the elderly and handicapped in urban areas. Like the poor and the very young in urban areas, however, they are largely dependent upon public transit systems for moving from one destination to another. Most of them do not own cars, and walking is not a feasible means of getting to most destinations. Although some social service agencies provide transportation services for this group, they are inadequate for meeting the mobility needs of most elderly and handicapped people.

Although we can agree that the elderly and handicapped are dependent upon urban mass transit systems, we must acknowledge the problems that the elderly and handicapped are likely to experience when using these transit systems. First, they usually are not well served by the transportation systems available to them, because their incomes are typically too low to purchase adequate amounts of transportation. Also, they frequently live in areas that are poorly served by public transportation. They are confronted by a transportation network and facilities largely oriented to the private automobile, and the physical design and service features of present transportation systems create problems of orientation and maneuverability that frequently discourage elderly and disabled passengers from making trips.<sup>5</sup>

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<sup>5</sup>Glenn Yago, "The Sociology of Transportation," Annual Review of Sociology 12 (May 1985):162-164.

Further, it is especially difficult for the handicapped to get on and off public transit vehicles, or compete for space when vehicles are crowded. Another problem is that there are not enough special vehicles available to serve the elderly and handicapped.

It is not unreasonable to assume that the elderly and handicapped in Atlanta face these and other problems when using the MARTA system. However, the problem to be addressed in this paper can be stated as follows: "What are the major problems encountered by the elderly and handicapped riders of the MARTA system and how can these problems be resolved by the Special Transportation Unit?" This writer feels that no one is better able to answer this question than the elderly and handicapped who use MARTA. A non-random survey was conducted to obtain the responses of these riders concerning the problems they experience and how they feel the problems could be solved.

### III. REVIEW OF THE LITERATURE

The availability and quality of public transit services for the elderly and handicapped are not new issues in the literature on public transportation. Two questions in particular about this literature are most relevant to this study of Atlanta:

1. What types of problems are frequently encountered by elderly and handicapped riders of public transit?
2. What types of changes and improvements in public transit services have been adopted in different communities to resolve problems experienced by elderly and handicapped users?

#### Problems Facing Elderly and Handicapped Public Transit Riders

Governmental efforts in transportation for the elderly and handicapped go back to the 1950s and 60s when a variety of agencies, conferences, commissions, task forces and Congressional hearings were concerned with identifying the long-range transportation needs of the elderly and disabled. The primary source of much of this activity was a variety of social and welfare programs which were then being made available to the elderly and disabled, but to which they lacked adequate transportation.<sup>6</sup> The Council of State Governments, in its

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<sup>6</sup>U.S. Department of Agriculture, Farmers Home Administration (in cooperation with the National Council for Transportation Disadvantaged, Rural Rides), A Practical Handbook for Starting and Operating a Rural Public Transportation System (Washington, D.C.: n.p., 1980), p. 5.

report to the Governors Conference of 1955, also spelled out specific objectives for the older population. Maximum choice among alternatives and access to necessary services by the elderly were again affirmed as the basic goals for governmental action by the Senate's Special Committee on Aging.<sup>7</sup>

In a study by the Urban Mass Transportation Administration in 1986, it was reported that the problem for many elderly and disabled Americans was the availability of transportation, any transportation. Many elderly and disabled persons live in isolated rural areas, with little or no access to any form of transportation. Even in urban areas, the elderly and disabled frequently live in residential locations poorly served by public transit, especially during peak hours. Public transit in Fulton and DeKalb Counties is essentially designed to serve the work force and carry them to and from jobs in the central business district. When the peak period is over, service levels decline sharply and off peak riders are provided with poor service. These riders are frequently the elderly and disabled.

In a case study conducted by MARTA in 1981, it was discovered that poor service levels are further compounded by the fact that routes are traditionally designed to serve work force destinations, especially in the Central Business District (CBD) areas. Destinations outside the Central Business District are sometimes not served at all, or with great infrequency. Thus, access to clinics and other facilities may be impossible, especially if appointments must be kept.

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<sup>7</sup>Ibid., p. 7.

Without the availability of a private automobile, the elderly and disabled are frequently unable to obtain the medical care they need or to participate in the range of socializing activities essential to their well-being and survival.<sup>8</sup>

As the size of the community decreases, it is said that there is less and less convenient public transportation available to the elderly and disabled. MARTA's recent survey on the availability of public transportation to the Central Business Districts in major urban areas confirms this conclusion by the results of the survey. All of the difficulties of deteriorating public transit services, elimination of routes, isolation in rural areas and in the inner city, add to the mobility problems confronting the elderly and handicapped.

Among the many problems confronting elderly and disabled persons in their efforts to obtain transportation is the variety of design and travel barriers on the systems they use. The elderly and disabled are at a disadvantage in having to learn new transportation skills when using public transportation instead of the automobile. These difficulties are compounded by barriers designed into the facilities themselves.

Travel barriers fall into two categories: (a) those barriers in which the individual acts upon the system, and (b) those barriers in which the system acts on the individual. In the case of the first group, much of the previous discussion concerns these barriers: low

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<sup>8</sup>U.S. Department of Health, Education and Welfare, "Planning and Coordination Manual: Joint HEW-UMTA Evaluation of Elderly and Handicapped Transportation Services in Region IV," Vol. II (Atlanta, GA: n.p., 1981), p. 6.



income, psychological or emotional barriers, and physical handicaps.<sup>9</sup>

In the second category fall the difficulties associated with the vehicle, terminal facilities, the facilities for interchanging between one mode and another, problems of vertical and horizontal movement, inadequate weather protection, transfer of needed information, poor light timing for driving or when crossing intersections, and very frequently inadequate personal and support facilities.

A more recent study done by the Atlanta Regional Commission entitled "Handicapped and Elderly Survey" found that the problems of the elderly and handicapped were similar. For example, based on a sample of elderly and disabled within the boundaries of medium-sized populations (like that of Fulton and DeKalb) the following were reported:

1. One-third reported difficulty moving quickly enough to get on and off buses;
2. Over one-third of the elderly indicated that they were unable to maintain balance if required to stand while riding;
3. Over 50 percent reported using the bus for grocery and other types of shopping, but one-third reported having difficulty carrying packages on the bus;
4. Among all the elderly interviewed, almost one-fifth said that they were unable to pull the signal cord on the bus, and though the majority of the respondents had no hearing problems, 17 percent had difficulty hearing or understanding the driver.<sup>10</sup>

The design problems are evident and need little additional study, except if connected with studies and research for solutions. There has been considerable official recognition by transportation agencies of the problems faced by the elderly and handicapped in

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<sup>9</sup>Ibid., p. 10.

<sup>10</sup>Ibid., p. 13.

relation to existing systems, including identification of specific design barriers to travel. New systems, such as the Bay Area Rapid Transit (BART) in San Francisco and METRO in Washington, D.C., have incorporated barrier-free elements in their planning. However, the major capital investment required for new equipment and redesign and replacement of old equipment on existing barrier-ridden systems has proven to be a formidable obstacle to action.

Consequently, solutions to the mobility needs of the elderly and handicapped have often emphasized the development of alternative systems involving a more personalized "hands-on" type of transit service (including dial-a-ride, and other demand-responsive forms of operation). Many communities have, in fact, chosen to move in the direction of providing separate special services in attempting to deal with problems of the handicapped in obtaining necessary transportation. The cost of reworking elements of existing systems to accommodate the needs of the handicapped and elderly is judged to be more costly than the provision of such services in "special" systems.

The design accommodations incorporated in the BART and METRO systems are being followed closely by transportation planners in terms of costs and effectiveness. Architectural modifications on the BART system include the incorporation of elevators to move the non-ambulatory or semi-ambulatory vertically from street, train platforms and vice versa. Elevators were to be equipped with telephones within easy reach of a wheelchair for calling the station agent. Restroom facilities were to be designed for use by the handicapped. Stairs

and boxcar designs reflect modifications for use by the handicapped and/or wheelchair-bound. Loudspeaker systems and information signs, special service gates, fare collection machinery, placement of telephones and elevator buttons have all been designed to meet the needs of the handicapped and elderly.<sup>11</sup>

Based upon current statistics describing the transportation cost of the elderly and disabled populations, it becomes easier to understand why a wide variety of transportation services and equipment are needed to meet their mobility needs. For the fast growing elderly and disabled communities, adequate means of transportation will continue to be a pressing concern. At the present time, there are a great many public and private agencies often operating with extremely limited resources dedicated to assuring the mobility of elderly and handicapped individuals.<sup>12</sup>

Several important laws and regulations, predominantly at the federal level, have played a critical part in setting the framework for transit service planning, operation, and cost in recent years. The first such law was the Urban Mass Transportation Act adopted in 1964. This act was specifically designed by Congress "to encourage the planning and establishment of area-wide urban mass transportation system." In 1970, Section 16 of the act required grant recipients to make "special efforts in the planning and design of mass

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<sup>11</sup>Georgia, Department of Human Resources, "FY 1984-85 Plan for Transportation," (Atlanta, GA: n.p., June 1982), p. 44.

<sup>12</sup>Ibid., p. 48.

transportation facilities and services so that the availability to elderly and handicapped persons of mass transportation which they utilize will be assured."<sup>13</sup>

Another important federal law affecting the cost and provision of transportation services to elderly and disabled persons is the "504 Rehabilitation Act" which was adopted by Congress in 1973. Section 504 prohibits "discrimination against disabled and elderly persons in any federally-assisted program. No elderly or disabled individual can be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."<sup>14</sup>

The elderly and handicapped need access to transportation services in order to participate in activities which are essential to their well-being. Those activities include health care, shopping and personal business, income assistance programs, and, for most if not all, recreation and social functions.

#### Efforts to Improve Transit Services for the Elderly and Handicapped

To understand how we could improve public transit services for the elderly and handicapped, profiles of six communities are provided next. Included in each profile is information on the use of special services by elderly and disabled persons, as well as locally available information on the costs of providing the services. With respect to

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<sup>13</sup>U.S. Department of Health and Human Development Services, "Strategies to Improve Specialized Transportation by American Public Welfare Association" (Washington, D.C.: n.p., September 1983), p. 89.

<sup>14</sup>Theodore H. Poister, "Federal Transportation Policy for the Elderly and Handicapped: Responsive to Real Need?" Public Administration Review 42 (January/February 1982):16-22.

both ridership data and cost information for special services, some variation exists among systems due to differences in how ridership data are collected, what factors are included in the estimates of service cost, and the relative ease or difficulty of estimating ridership and costs of differing types of services. Regardless of these variations, the profiles provide a direct and accurate view of how services for elderly and disabled persons are being provided today in particular communities. Since virtually every transit system in the country is engaged in providing similar services, the profiles are also directly representative of the commitment being made across the country.

Palm Beach County Transportation Authority  
(COTRAN), West Palm Beach, Florida

The Palm Beach County Transportation Authority (COTRAN) provides fixed-route accessible transportation for 1,137 elderly and 45,907 disabled riders in Palm Beach County. In providing this service, COTRAN operates a fleet of eighty-three standard buses, all of which are lift-equipped. Some of the newer buses are also equipped with a kneeling feature to provide access to ambulatory disabled riders.

COTRAN's fixed-route service began in 1971 when the local commission established a public transportation authority to operate the service previously operated by a private provider. COTRAN has provided accessible fixed-route service in Palm Beach County since 1977.<sup>15</sup>

Use of the lift and kneeler is extended to any passenger who finds it difficult to use the stairs. This includes ambulatory

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<sup>15</sup>Susan Brooks, "Mobility for the Elderly and Handicapped: A Case for Choices," Transit Journal, Vol. 2, No. 3 (May 1985):28.

disabled passengers as well as wheelchair users. All elderly and disabled passengers are eligible to pay a reduced fare of thirty-five cents during peak and off-peak periods. Disabled riders must have a doctor's certification of their disability and elderly passengers aged sixty and over must show some proof of age. After certification, COTRAN issues an identification card which must be displayed upon boarding. In addition, elderly riders who do not have an identification card may use a medicare card instead. The reduced fare is in effect at all times during regular services hours.

In addition to providing accessible service on its fixed-routes, COTRAN contracts to provide transportation for a number of local condominium communities, comprised largely of elderly residents. The costs of providing elderly and disabled services are incorporated into COTRAN's general operating budget.<sup>16</sup>

COTRAN maintains public awareness about its services through various public relations campaigns in local newspapers. In October 1985, a major advertising campaign was undertaken to make elderly and handicapped riders more aware of these services.

All COTRAN drivers receive both training in wheelchair lift operation and sensitivity training to enable them to understand the needs of elderly and disabled persons. COTRAN's driver training program is headed by a nationally-acclaimed expert in the training field.

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<sup>16</sup>Ibid., p. 36.

Policy decisions regarding elderly and disabled services are facilitated by two advisory committees in Palm Beach. The Coordinated Transportation Task Force, a committee consisting of transportation users, provides citizen input into transportation services for elderly and disabled persons. The thirteen-member committee is composed of wheelchair users, visually-impaired individuals and members of social service agencies who represent mentally handicapped persons. The task force has expressed a preference for a dial-a-ride service to provide accessible transportation. In response to this stated preference, COTRAN is currently considering the prospect of developing such a service. The Coordinated Transportation Technical Advisory Committee is composed of twelve members, representing various service agencies that provide transportation to elderly and disabled persons. Both committees are presently involved in an effort to coordinate the transportation services for mobility-impaired persons currently provided by thirty-seven local social service agencies.<sup>17</sup>

Cambria County Transit Authority  
Johnstown, Pennsylvania (CCTA)

The Cambria County Transit Authority (CCTA) provides transportation services for the 180,000 residents in Cambria County, Pennsylvania, and the surrounding areas. CCTA has an urban fleet consisting of twenty-seven standard lift-equipped buses, making its fixed-route service 100 percent accessible to mobility-impaired riders. CCTA's rural division utilized eleven standard vehicles, two of which

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<sup>17</sup>Ibid., p. 38.

are lift-equipped to provide both fixed-route and an advanced reservation call-and-demand service open to the general public. On the call-and-demand service, senior citizens ride for free and disabled persons ride for half the regular fare.

The decision to implement 100 percent accessible fixed-route service in the urban area stems from a recommendation made by a local disabled persons advisory committee to the Metropolitan Planning Organization. During preparation of CCTA's plan to comply with the proposed 1979 U.S. Department of Transportation (DOT) regulation, requiring all public transit vehicles to be made accessible, the committee recommended that all buses purchased by CCTA be lift-equipped. CCTA followed this recommendation and retained its fixed-route accessible service, even though the 1981 DOT interim ruling expanded the options of transit operators in providing accessible transportation.<sup>18</sup>

Disabled passengers under age sixty-five receive a Reduced Transit Fare Identification Card which enables them to pay a thirty cent off-peak fare, half the regular urban fare. The additional costs incurred as a result of the half fare policy are subsidized by a mixture of local, state and federal assistance. Riders age sixty-five and older may register for the state's Free Transit Program. Under this program, the State of Pennsylvania provides CCTA the full fare of each eligible rider, enabling the rider to ride CCTA buses for free during non-peak hours. All riders pay full fare during peak periods. As riders with less visible disabilities, such as heart conditions

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<sup>18</sup>Charles Davis, "Accessibility Requirements for Handicapped Persons," Urban Mass Transportation Administration (June 1980):6.



and respiratory problems, may find boarding the bus equally difficult, CCTA extends lift use and reduced fare eligibility to these passengers as well. Over 33,000 elderly and 54,000 disabled passengers utilized CCTA's fixed-route accessible service in fiscal year 1986, while approximately 4,000 riders with limited mobility made use of fixed-route accessible service in the rural division.<sup>19</sup>

Since the inception of fixed-route accessible service, CCTA has worked closely with elderly and disabled groups and local government agencies in a constant effort to improve service. As a result of these working relationships, almost all intersections in the central business district have curb cuts, increasing the use of CCTA buses by wheelchair users. A special charter service has also been developed, allowing groups of disabled persons to charter CCTA buses for social outings.

In addition to improvements in service operation, CCTA has sought to improve the quality of service given to elderly and disabled persons through its employee training programs. All operators must take a sensitivity course in dealing with the special needs of disabled riders. Also, each operator must cycle the lift on his/her bus prior to beginning his/her run. This cycling process serves to continually refresh the operator's knowledge about the lift, while ensuring that all lifts are functioning properly prior to beginning service.<sup>20</sup>

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<sup>19</sup>Ibid., p. 8.

<sup>20</sup>Ibid., p. 10.

To enhance public awareness about their accessible fixed-route service, CCTA has developed a slide show and brochure explaining proper use of the wheelchair lift and kneeler. Also, a special brochure has been published and distributed encouraging senior citizens to register for Pennsylvania's Free Transit Program for Senior Citizens. As a result of this effort, over 7,000 senior citizens have registered for the state program.

Pace (Suburban Bus Division of the RTA)  
Arlington Heights, Illinois

The Pace Paratransit Program serves the mobility needs of elderly and disabled riders across a 2,000 square mile area of six counties in Illinois. The program originated from a policy adopted by the Regional Transit Authority in 1977 that called for the development of a transportation system that offers disabled persons comparable transportation to that offered to the general public.

The Pace Paratransit Program offers a variety of services: dial-a-ride door-to-door, subscription bus and sharedride taxi services. In addition, Pace is involved with coordinating special transportation services to cover all parts of the six-county area and to further develop a ride-sharing program for large employers.

The paratransit program utilizes an array of vehicles which include 112 fifteen-passenger lift-equipped minibuses, supplemented by an additional thirty-nine buses, vans and autos, and approximately 200 taxicabs. Pace leases many of the vehicles directly to local communities which help pay for the paratransit services. The community may directly operate the local paratransit services or contract with a

third party. In this way, the program remains flexible with each community tailoring different service levels as needed for its mobility-impaired residents.<sup>21</sup>

Representatives of the disabled community have regular input into the planning and managing of Pace's paratransit program. Pace's staff participates in monthly meetings of the Mobility-Limited Advisory Council and also communicates with members of other advisory groups. The two advocacy groups advise transit agencies on the service needs of people with disabilities. Representatives from the disabled community are members of the Pace Citizens Advisory Committee. Furthermore, Pace participated in developing the recent state-wide report on public transportation for disabled persons in Illinois. The report, conducted by the Governor's Transportation Task Force for individuals with disabilities, serves as a guide for transit agencies throughout the state.<sup>22</sup>

Pace is in the process of implementing a driver's training and sensitivity program. In addition, Pace conducts periodic training seminars for local paratransit personnel on recordkeeping and insurance requirements.

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<sup>21</sup>Joan Brown, "Transportation for Elderly and Handicapped Persons, Paratransit and Ridesharing," Transportation Research Board (May 1985):16.

<sup>22</sup>Ibid., p. 17.

VIA Metropolitan Transit  
San Antonio, Texas

VIA Metropolitan Transit is a regional public transit system that provides transportation in the San Antonio metropolitan area. Established in 1978, VIA operates a fleet of 473 standard and small buses providing public transportation for over one million people in San Antonio.

Transportation for elderly and disabled persons in San Antonio is provided by VIAtrans, a curb-to-curb demand-responsive service operated by VIA. The VIAtrans fleet consists of twenty lift-equipped vans, fourteen of which are in operation during peak hours. Each VIAtrans van is equipped with wheelchair tiedowns, seat belts, an extended roof, an extra boarding step, flood lights and a two-way radio.

As part of the VIAtrans service, VIA also contracts with a local taxi company to provide curb-to-curb service to the mobility-impaired rider upon request by a VIAtrans dispatcher. Dispatchers allocate van or taxi service on a case-by-case basis. Taxi riders comprise approximately one-third of all VIAtrans trips.<sup>23</sup>

VIA's decision to operate a public paratransit service came about as a result of a general sense within the community of dissatisfaction with the service that had previously existed. In response to this public sentiment, VIA implemented its demand-responsive service in 1978, with fewer restrictions imposed on its riders. After passage of the 1981 federal 504 Interim Final Rule establishing local options,

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<sup>23</sup>Ibid., p. 22.

VIA, along with the local Special Services Advisory Committee, made VIAtrans the key component of the Local Options Plan.<sup>24</sup>

VIAtrans operates seven days a week from 6:00 a.m. to 11:00 p.m. Anyone with a mobility impairment, regardless of age, is eligible for the service upon verification of the disability by a doctor or appropriate social service agency. Eligible riders make advance reservations, giving the destination and time they wish to be picked up. Reservations may be made as early as a week in advance or as late as two hours in advance. Trips are scheduled on a first-come first-served basis. A subscription service is also available for riders who have regularly scheduled trips such as work, school, and medical visits. Riders pay a fifty-cent fare for a one-way trip. Passenger attendants may ride the VIAtrans vehicles for free. The additional cost of operating VIAtrans is subsidized by a local one-half cent sales tax.

In providing accessible service for elderly and disabled persons, VIA maintains a close working relationship with the local Special Services Advisory Committee (SSAC). The policy advisory committee on elderly and disabled issues, SSAC is comprised of twenty-six individuals representing the interests of the elderly and disabled population. This relationship has led to improvements in a number of special service-related areas, including better communication between mobility-impaired persons and VIA and improved operational and sensitivity training for VIAtrans' drivers. VIA's present training program includes an initial one- to two-week sensitivity training program for all vehicle

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<sup>24</sup>Ibid., p. 26.

operators. In addition, printed materials providing instructions on passenger assistance are given to each new driver.<sup>25</sup>

Another product of this cooperation has been the design of a new lift-equipped van with more space, optional wheelchair ambulatory seating and improved safety features. To further improve service, VIA and the SSAC are presently reviewing ways to coordinate community paratransit, increase vehicle productivity and develop a user mobility training program.

Sun Train  
Tucson, Arizona

Paratransit service is the primary means of meeting the mobility requirements of the elderly and disabled communities in Tucson. The city contracts out to a private provider of transit services for its elderly and disabled residents. Qualified city residents are eligible for the service throughout the corporate city limits of 124 square miles.

The contractor has a fleet of forty vehicles; twenty-six are lift-equipped vans. Patrons are charged seventy-five cents for the demand-responsive service and a special fare of forty cents is offered to low-income patrons. Riders must call forty-eight hours in advance to schedule a trip. The service is available on a first-call, first-served basis.

In addition to the private transit provider, Sun Tran, Tucson's fixed-route public transit system, operates nineteen standard size lift-

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<sup>25</sup>Ibid., p. 27.

equipped buses. These vehicles travel on the city's busiest route which carries 25 percent of the entire system's riders. Elderly and disabled riders pay a reduced fare of twenty-five cents for the fixed-route buses.<sup>26</sup>

Tucson's elderly and disabled communities are involved in transit operations by means of the Mayor's Commission on the Handicapped. In addition, a subcommittee to oversee operations of the private contractor's service has recently been formed and will be making recommendations to the Mayor and the Council in areas they feel will improve service.

The contract with the private transit provider obligates the company to offer extensive driver training. Drivers must complete a driver course which includes a minimum of twenty hours of classroom and behind-the-wheel instruction. This includes defensive driving techniques, learning vehicle components with an emphasis on the lift mechanism, first aid, and state rules and regulations. Drivers are trained in the unique needs and proper techniques for assisting disabled individuals whether ambulatory persons or wheelchair users. In addition, drivers undergo empathy and sensitivity training sessions so that they become more aware and understanding of the special transit needs of people with disabilities. Drivers are also trained in how to respond to medical emergencies.<sup>27</sup>

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<sup>26</sup>Joseph Clapp, "New Developments in Transportation for the Elderly and Handicapped," Transportation Research Board (May 1984): 66.

<sup>27</sup>*Ibid.*, p. 68.

Long Beach Transportation Company (Long Beach Transit), Long Beach, California

Long Beach transit operates a variety of services for the frail elderly, persons with disabilities and the developmentally disabled in recognition that different types of services are needed in order to give the greatest amount of mobility to transit dependent individuals. These include fixed-route accessible, demand-responsive, and user-side subsidy service.

Accessible fixed-route service predominates in Long Beach Transit's area of operation. This type of service utilizes ninety-seven standard size buses (ranging from thirty-five to forty feet) equipped with ramps or lifts. Over 50 percent of the entire standard size bus fleet is accessible.<sup>28</sup>

In 1976, Dial-A-Lift, a demand-responsive service, began operation in order to accommodate individuals with disabilities who were not able to use the regular fixed-route service. Dial-A-Lift serves the tri-city area of Long Beach, Signal Hill and Lakewood. An informal survey of Dial-A-Lift riders indicates that one-fifth of them moved into the area in order to take advantage of the area's transit service. In March 1983, Dial-A-Lift began service to elderly residents (sixty-two years or older) of the city of Signal Hill on a contractual basis with the municipality and funded in full by Signal Hill's Proposition A Local Return Funds. Dial-A-Lift consists of a fleet of seventeen lift-equipped vans. In an effort to keep only the most efficient vans,

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<sup>28</sup>John Lantz, "Consolidation of Social Service and Public Transportation Resources," Traffic Quarterly, Vol. XXXV, No. 4 (October 1981):242-250.



Long Beach tries to replace four vans every year with new purchases.

Two additional contracted services for the elderly and disabled residents include Senior Care Action Network (SCAN) and Handi-Van. SCAN is a transportation access program for frail elderly persons residing in the Long Beach area. It utilizes a voucher system which allows free riders in taxi cabs for elderly persons. Handi-Van, a demand-responsive service, serves persons with developmental disabilities. Currently, there are two vans, one lift-equipped, and the Handi-Van fleet.<sup>29</sup>

Long Beach Transit succeeds in involving the elderly and the transit dependent in its operations by means of an Advisory Committee on Accessible Service. Started in April 1983, the committee serves as an information disseminating mechanism to persons with disabilities. In FY 1985, the committee expanded its role to include the transportationally disabled into the decision making and planning processes.

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<sup>29</sup>Ibid., p. 252.

#### IV. METHODOLOGY

The non-random sampling technique was used to select a sample of the elderly and handicapped who are users of the MARTA system. The service area covers Fulton and DeKalb Counties.

A questionnaire was developed to determine if MARTA was adequately serving the transportation needs of the elderly and handicapped in Fulton and DeKalb Counties (See Appendix.) Questionnaires were administered to eighty (80) respondents who were selected from four different locations. They were (1) Wheat Street Towers, (2) Phillips Presbyterian Towers, (3) John F. Kennedy Center, and (4) Atlanta Rehabilitation Center. These centers were chosen because they were more accessible to the writer of this paper.

The first two are residential facilities for the elderly. Of the four locations, a total of twenty (20) respondents were obtained from each. Each respondent was told the purpose of the questionnaire and the voluntary nature of the survey.

Each questionnaire was divided into four sections: (A) Characteristics of Riders, such as sex, age, race and the type of handicap, (B) Ridership Characteristics or the number of times per week the respondent used MARTA and their First, Second and Third Most Frequent Type of Trip, (C) Evaluation of Current MARTA Services or how each respondent felt about MARTA and its accessibility to the places he/she wanted to go, and (D) Recommendations or improvements each respondent felt that MARTA should make.

## V. FINDINGS

### Characteristics of Riders

Of the eighty (80) riders surveyed, 39 percent were male and 61 percent were female. Half of the respondents were under fifty-six years of age and the other half were fifty-six years old or older. Sixty percent of the respondents were black and 40 percent were white.

Respondents were asked to identify their handicap, if any. Responses are summarized in Table 2. The majority (61 percent) of the respondents had some type of handicap. The largest group were those with medical/vocational rehabilitation. Medical/vocational rehabilitation is the process of putting individuals back into the work force who, because of their medical problems, have not had specific job training or they have no job experience or skills at all. The second major group were those with walking difficulties.

### Ridership Characteristics

Respondents were asked to list the number of times they used MARTA on a weekly basis. The majority of the respondents (50 percent) stated that they used MARTA two or three times a week. Thirty-nine percent stated that they used MARTA four or more times per week. Only 11 percent of the respondents used MARTA once a week. Respondents

were also asked to name their first, second and third most frequent type of trip on MARTA. Table 3 summarizes the first most frequent type of trip made by respondents.

TABLE 2  
TYPE OF HANDICAPS

Handicap	Number	Percent
Elderly with No Handicap	31	39
Medical/Vocational Rehabilitation	20	25
Walking with Difficulty or Needing an Aid	11	14
Blind	7	9
Impairment of Upper Extremities	6	7
Wheelchair User	<u>5</u>	<u>6</u>
Total	80	100

Source: Elderly and Handicapped Transportation Questionnaire, 1987. Prepared by writer.

Trips to the doctor/clinic was the first response of almost 50 percent of the sample. Trips to the grocery store and trips to work were also quite common.

Table 4 summarizes responses to the question about their second most frequent type of trip by MARTA. The most frequent response was

TABLE 3  
MOST FREQUENT TYPE OF TRIP MADE BY ELDERLY  
AND HANDICAPPED RESPONDENTS ON MARTA

Type of Trip	Number (in descending order)	Percent (in descending order)
Doctor/Clinic	36	45
Work	21	27
Grocery/Convenience Stores	19	24
Downtown	2	2
Mall	1	1
Entertainment or Socializing	1	1
Visit Friends, Relatives	0	0
Church	0	0
Other	<u>0</u>	<u>0</u>
Total	80	100

Source: Elderly and Handicapped Transportation Questionnaire, 1987. Prepared by writer.

grocery/convenience stores (33 percent). The next most frequent response was for trips to the mall (25 percent).

Table 5 summarizes the findings for the third most frequent type of response. Trips to the mall was the most frequent response in this section, followed by the trips to grocery/convenience stores.

TABLE 4  
SECOND MOST FREQUENT TYPE OF TRIP MADE BY ELDERLY  
AND HANDICAPPED RESPONDENTS ON MARTA

Type of Trip	Number (in descending order)	Percent (in descending order)
Grocery/Convenience Stores	26	33
Mall	20	25
Doctor/Clinic	19	24
Downtown	6	6
Work	5	6
Entertainment or Socializing	3	4
Visit Friends, Relatives	2	2
Church	0	0
Other	0	0
Total	80	100

Source: Elderly and Handicapped Transportation Questionnaire, 1987. Prepared by writer.

TABLE 5

THIRD MOST FREQUENT TYPE OF TRIP MADE BY ELDERLY  
AND HANDICAPPED RESPONDENTS ON MARTA

Type of Trip	Number (in descending order)	Percent (in descending order)
Mall	39	48
Grocery/Convenience Stores	15	19
Entertainment or Socializing	12	15
Doctor/Clinic	7	9
Downtown	4	5
Visit Friends, Relatives	3	4
Work	0	0
Church	0	0
Other	0	0
Total	80	100

Source: Elderly and Handicapped Transportation Questionnaire,  
1987. Prepared by writer.

### Evaluation of Current MARTA Services

Respondents were asked if they felt that MARTA went to all the places they wanted to go. Some 55 percent of the respondents said that MARTA did service the places they wanted to travel, while 45 percent of the respondents said that MARTA did not service the places to which they needed to travel.

Below is a list of some places to which respondents said MARTA did not service:

- Vocational workshops
- Gym in Gwinnett County
- Pizza Hut located on the other side of Peachtree Road (near Lenox)
- Draft house movie theaters
- A clinic in Decatur
- A social club on Fulton Industrial Boulevard
- Work site on the other side of Gwinnett Mall
- Apartment building on Lenox Road and Peachtree
- Drug store on Ansley and Morrow Boulevard
- Day class given at Technical College in DeKalb County

Table 6 shows a cross tabulation of the elderly and handicapped responses to the question "Does MARTA (bus or train) provide service to all the places you want to go?" It can be seen that 87 percent of the elderly felt that MARTA was accessible to the places they needed to travel to, while the majority of the handicapped (78 percent) felt that MARTA did not service their places of destination.

In a case study done by the Urban Mass Transportation Administration in 1986, the problem identified by many elderly and disabled Americans was the lack of transportation services. In another study conducted by MARTA in 1981, it was concluded that bus routes were designed to serve the work force, and not the elderly and handicapped populations.



TABLE 6

MARTA'S ACCESSIBILITY TO DESTINATIONS DESIRED BY  
ELDERLY AND HANDICAPPED RESPONDENTS

	<u>Elderly</u>	<u>Handicapped</u>
Yes	87%	22%
No	13%	78%
Total	100%	100%

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Source: Elderly and Handicapped Transportation Questionnaire, 1987. Prepared by writer.

Respondents were also asked to list the major types of problems they experience when riding MARTA. Handicapped respondents listed high fares and buses that did not show up on time. Their other major problems were (a) no special peak hour buses, (b) no demand-response service, and (c) not enough Lift-Van service for the handicapped.

The elderly had major problems also when riding MARTA. They were: (a) rude drivers, (b) high fares, and (c) fast buses (drivers who drive too fast). Other problems faced by the elderly were buses that were always late to their scheduled stops and rude passengers who did not give up their seats to the elderly.

The problems of the handicapped and the problems of the elderly are similar in many ways. For example, both groups have a problem with high fares and buses that do not arrive on time. On the other hand, the handicapped have more problems with the lack of special peak hour buses and inadequate number of Lift-Vans. The elderly are more concerned with

rude drivers and rude passengers who did not give up their seats.

Each respondent was also asked to give an overall rating of MARTA's services. Responses to this question are summarized in table 7. It can be seen that the majority of elderly respondents rated MARTA as "good" or "excellent." All of the handicapped respondents, on the other hand, rated MARTA as "fair" or "poor." This is consistent with their responses about MARTA not being accessible to all the places to which they would like to travel.

#### Recommendations for Improving MARTA Services

This section of the questionnaire asked respondents to list their first, second and third recommendations for improving MARTA's service to the elderly and handicapped. The responses of the elderly are summarized first.

The elderly respondents had several recommendations. They felt that there should be special buses on Saturday to take them shopping. Respondents also stated that MARTA should implement more lift-equipped buses on their regular routes. They also felt that MARTA should have special buses or routes just for them during the peak hours. Some respondents stated for their first choice that MARTA should implement fixed-route schedules and demand-responsive services. Second and third choices for other respondents were more E-Van service and better drivers, respectively. Respondents stated for their third choice the implementation of lower fares.

The recommendations from the handicapped were similar to those of the elderly. The majority of the respondents stated for their first

TABLE 7

OVERALL RATING OF MARTA BY ELDERLY AND  
HANDICAPPED RESPONDENTS

	<u>Elderly</u>	<u>Handicapped</u>
Excellent	15%	0%
Good	78%	0%
Fair	7%	68%
Poor	0%	32%
Total	<u>100%</u>	<u>100%</u>

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Source: Elderly and Handicapped Transportation Questionnaire, 1987. Prepared by writer.

choice that they would like to have fixed-route schedules and a demand-response service. Some respondents stated for their second choices that they would like lower fares and more L-Van service. Respondents, for their third choice, stated that they would like more lift-equipped buses on the routes MARTA already has, in addition to the implementation of lower fares.

## VI. CONCLUSIONS AND RECOMMENDATIONS

The purpose of this research was to identify some of the major problems encountered by the elderly and handicapped who ride the MARTA system, as well as ways in which their problems can be solved by the Special Transportation Unit.

It is clear from the research done in this paper that MARTA, at this current date, cannot provide or meet all of the transportation needs of the elderly and handicapped in Fulton and DeKalb Counties without a variety of changes. From the results of the survey, it is again clear that the handicapped community encounters more problems riding MARTA than the elderly community.

The handicapped feel that MARTA does not provide enough good service to them. They think that MARTA should have more lift-equipped buses in its fleet. They also feel that MARTA should provide special L-Van service to them at the various centers they visit each day. Also, a high percentage of the handicapped said that MARTA did not go to all the places they need to go on a weekly basis.

The elderly are really glad for a lot of the services that MARTA provides for them. They think that MARTA does go to all the places they need to go, and a majority of them rated MARTA services as being "good." They think that some of the drivers are rude, but that was also a complaint of the handicapped. Currently, the elderly

population had minor concerns relative to those expressed by handicapped respondents.

Both groups favored fixed-route service over demand-responsive service. Fixed-route service means that a bus would be available the same time every day on every route, while demand-responsive means that door-to-door service would be available only when the rider called for a van. The two groups also felt that MARTA should expand its L-Van service and E-Bus service that already exists, but has limited, if any, room left on their riding list. L-Van is a service that MARTA provides for the handicapped, but the waiting list is six months long, because there are not enough buses to go around. The E-Bus is a service that is provided for the elderly to take them on shopping trips, but it too has a long waiting list at the senior citizens' apartments.

A final concern expressed by the respondents was the need to lower fares. Both groups felt that MARTA should or could be more in tune with their financial resources or what they can afford to pay.

This writer feels that the recommendations made by the survey respondents are the best improvements for making the MARTA system more accessible, comfortable, and convenient to its elderly and handicapped riders. The recommendations made by this group are very similar to the types of improvements that are being made in the cities discussed in the Review of the Literature in Section Three of this paper. MARTA's Special Transportation Unit could begin to make the recommended changes now, and, after a period of time, survey the elderly and handicapped again to see if in fact the changes were improving services the way

one would expect. At some point, there should be a noticeable improvement in the attitudes of the elderly toward MARTA's services. Perhaps then MARTA could become a case study for other cities to use in improving their public transit services for this transit-dependent population.

Finally, MARTA should improve its fleet of lift-equipped buses that go out on the street, keeping in mind that there are a lot of handicapped and elderly people who ride the regular buses also. This should be done over a period of time, increasing the buses at certain locations where there is a high population of elderly and handicapped riders. MARTA should also keep in mind that lower fares should play a part in any decision making process of transportation for the elderly and handicapped.

APPENDIX  
QUESTIONNAIRE ADMINISTERED TO ELDERLY AND HANDICAPPED  
PERSONS IN FULTON AND DEKALB COUNTIES

A. CHARACTERISTICS OF RIDERS

## 1. SEX

- \_\_\_\_\_ 1. Male
- \_\_\_\_\_ 2. Female

## 2. AGE

- \_\_\_\_\_ 1. 25-35
- \_\_\_\_\_ 2. 36-45
- \_\_\_\_\_ 3. 46-55
- \_\_\_\_\_ 4. 56 or older

## 3. RACE

- \_\_\_\_\_ 1. Black
- \_\_\_\_\_ 2. White
- \_\_\_\_\_ 3. Other \_\_\_\_\_

## 4. TYPE OF HANDICAP

- \_\_\_\_\_ 1. Blind
- \_\_\_\_\_ 2. Wheelchair User
- \_\_\_\_\_ 3. Walking with difficulty/needing an aid
- \_\_\_\_\_ 4. Impairment of upper extremities
- \_\_\_\_\_ 5. Medical/vocational rehabilitation
- \_\_\_\_\_ 6. Elderly with no handicap

B. RIDERSHIP CHARACTERISTICS

## 1. HOW MANY TIMES DO YOU USE MARTA EACH WEEK?

- \_\_\_\_\_ 1. Once
- \_\_\_\_\_ 2. Two or three
- \_\_\_\_\_ 3. Four or more



## 2. WHAT DO YOU USE MARTA FOR?

- \_\_\_\_\_ 1. Grocery, Convenience Stores
- \_\_\_\_\_ 2. Doctor/Clinic
- \_\_\_\_\_ 3. Mall
- \_\_\_\_\_ 4. Downtown
- \_\_\_\_\_ 5. Visit Friends, Relatives
- \_\_\_\_\_ 6. Entertainment or Socializing
- \_\_\_\_\_ 7. Work
- \_\_\_\_\_ 8. Church
- \_\_\_\_\_ 9. Other

## 3. WHICH TYPE OF TRIP DO YOU MAKE MOST FREQUENTLY ON MARTA?

1. \_\_\_\_\_  
\_\_\_\_\_

## 4. WHICH IS THE SECOND MOST FREQUENT TYPE OF TRIP ON MARTA?

1. \_\_\_\_\_  
\_\_\_\_\_

## 5. WHICH IS THE THIRD MOST FREQUENT TYPE OF TRIP ON MARTA?

1. \_\_\_\_\_  
\_\_\_\_\_

C. EVALUATION OF CURRENT MARTA SERVICES

## 1. DOES MARTA (BUS OR TRAIN) PROVIDE SERVICE TO ALL THE PLACES YOU WANT TO GO?

- 1. Yes \_\_\_\_\_
- 2. No \_\_\_\_\_

## 2. IF MARTA DOESN'T PROVIDE SERVICE TO ALL THE PLACES YOU WOULD LIKE TO GO, WHAT PLACES DOESN'T IT SERVICE?

1. \_\_\_\_\_  
\_\_\_\_\_

3. WHAT IS THE MAJOR PROBLEM YOU EXPERIENCE WHEN RIDING MARTA?

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. WHAT IS ANOTHER PROBLEM YOU HAVE FACED WHILE RIDING MARTA?

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. HOW WOULD YOU RATE THE MARTA SYSTEM OVERALL?

\_\_\_\_\_ 1. Excellent  
\_\_\_\_\_ 2. Good  
\_\_\_\_\_ 3. Fair  
\_\_\_\_\_ 4. Poor

D. RECOMMENDATIONS

1. WHAT IS THE MOST IMPORTANT IMPROVEMENT THAT MARTA COULD MAKE IN ORDER TO BETTER SERVE THE TRANSPORTATION NEEDS OF THE ELDERLY AND HANDICAPPED?

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. WHAT IS THE SECOND MOST IMPORTANT IMPROVEMENT MARTA CAN MAKE?

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. WHAT IS THE THIRD MOST IMPORTANT IMPROVEMENT MARTA CAN MAKE?

1. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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